



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re Application of

JEFFREY A. CHAPMAN ET AL.

Serial No. 09/998,032

Filed: NOVEMBER 29, 2001

Title: PIXELLATED DEVICES SUCH AS ACTIVE MATRIX LIQUID CRYSTAL DISPLAYS

Commissioner of Patents, Washington, D.C. 20231

Atty. Docket

GB 000166

Group Art Unit: 2871

Examiner:

#91 Retain  
5/13/03  
Hayes  
RECEIVED  
JAN 15 2003  
TECHNOLOGY CENTER 2800

LETTER

Sir:

Pursuant to the duty of disclosure set forth in 37 CFR 1.56, Applicant calls to the attention of the Patent and Trademark Office a Search Report issued abroad in reference to a corresponding foreign application. A copy of the Search Report dated DECEMBER 13, 2002 is attached.

The enclosed document is being called to the attention of the Patent and Trademark Office solely to comply with the duty of disclosure set forth in 37 CFR 1.56 and is not intended to be construed as an admission by the Applicant that any of the documents listed is material.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Date: Jan. 10, 2003

By: Elissa DeLucy

Respectfully submitted,

By EB  
Eric M. Bram, Reg. 37,285  
Attorney

Encl. Search Report



# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

**PCT**

To:  
INTERNATIONAAL OCTROOIBUREAU B.V.  
Attn. Scott, Kevin J.  
Prof. Holstlaan 6  
NL-5656 AA Eindhoven  
NETHERLANDS

*MABE*

*18 DEC 2001*

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

<b>MABE</b>		Date of mailing (day/month/year) <b>13/12/2002</b>
Applicant's or agent's file reference <b>PHGB010166W0</b>	<b>FOR FURTHER ACTION</b> See paragraphs 1 and 4 below	
International application No. <b>PCT/ IB 02/ 04258</b>	International filing date (day/month/year) <b>10/10/2002</b>	
Applicant <b>KONINKLIJKE PHILIPS ELECTRONICS N.V.</b>		

1.  The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Fascimile No.: (41-22) 740.14.35

**For more detailed instructions**, see the notes on the accompanying sheet.

2.  The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3.  **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <b>Carina Bergström</b>
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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PHGB010166WO</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/ IB 02/ 04258</b>	International filing date (day/month/year) <b>10/10/2002</b>	(Earliest) Priority Date (day/month/year) <b>19/10/2001</b>
Applicant <b>KONINKLIJKE PHILIPS ELECTRONICS N.V.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
  - contained in the international application in written form.
  - filed together with the international application in computer readable form.
  - furnished subsequently to this Authority in written form.
  - furnished subsequently to this Authority in computer readable form.
  - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2.  **Certain claims were found unsearchable** (See Box I).

3.  **Unity of invention is lacking** (see Box II).

**4. With regard to the title,**

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No.**

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

1

None of the figures.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/IB 02/04258

**Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)**

A method of selecting a combination of transmit antennas (TA1 to TA4) and receive antennas (RA1 to RA4) in a MIMO antenna system to give the best isolation from adjacent parallel signal streams comprises transmitting a first signal from one of the transmit antennas and measuring a quality metric, for example signal strength, of the received signal at each of the receive antennas. The process is repeated using signals transmitted in turn by each the remaining transmit antennas. A channel matrix is compiled of the transmit antennas versus the receive antennas and a selection is made of a combination of transmit and receive antennas receiving acceptably a first signal and unacceptably a second signal and vice versa. The selected combination is used to send and receive MIMO signals.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/04258

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 H04B7/06 H04B7/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 144 711 A (POLLACK MICHAEL A ET AL) 7 November 2000 (2000-11-07) abstract column 1, line 65 -column 2, line 43 --- WO 01 78220 A (KATZ MARCOS ;NOKIA CORP (FI); YLITALO JUHA (FI)) 18 October 2001 (2001-10-18) abstract paragraphs '0007!-'0011! ---	1,2,8, 11-14
A		1,2,8, 11-14

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

6 December 2002

Date of mailing of the international search report

13/12/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Lustrini, D

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 02/04258

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6144711	A	07-11-2000	US	6377631 B1	23-04-2002
			US	6452981 B1	17-09-2002
			AU	4238697 A	19-03-1998
			CA	2302289 A1	05-03-1998
			EP	0920738 A1	09-06-1999
			EP	0931388 A2	28-07-1999
			JP	2001505723 T	24-04-2001
			WO	9809385 A2	05-03-1998
			WO	9809381 A1	05-03-1998
			WO	9809395 A1	05-03-1998
WO 0178220	A	18-10-2001	FI	20000853 A	11-10-2001
			AU	5483801 A	23-10-2001
			WO	0178220 A1	18-10-2001